

COURSE NO. 5

THE EDGEWISE BIOMECHANICS (PART I), TREATMENT OF THE CLASS II DIVISION 1 CASE. EXTRACTION OF THE TEETH 14,24,35 AND 45

PLACE : 28/111 Top of the Soi Jaeng Wattana - Parkkred 34, Jaeng Wattana Road, Parkkred, Nonthaburi 11120

COURSE CONTENTS:

Day 1 - Wednesday

- 10.00 General Discussion of technical problems & Home work
 Case Conference with quality document only
 Treatment planning (cont.)
 16 Concepts of the Edgewise Biomechanics (see Text)
 1st- 7th Principles
 Center of Resistance (CRe) and Center of Rotation (CRo)
 Rotation and Translation
 The Extraoral Forces: Biomechanics of the headgear
- 12.30 - 14.00 Lunch
- 14.00 The Force system & The roll of facial types and facial muscles
 Application of basic analysis procedure for planning of the mechanotherapy
 The roll of facial growth & development to the treatment
 Inclination of the mandibular incisors (IMPA)
 Model analysis: Its applications to force system design
- 18.00 Class finish

Day 2 - Thursday

- 9.45 Space gaining procedure
 Space closing procedure and the Curve of Spee
 Side Effect of Space Closing: Bowing Effect
 Extrusion of the max.&mand. Ant. Teeth
 Gummy smile
 Current concepts of the Early treatment:

Biomechanics in Eruption Guidance &

Maintaining of the Lee Way space

2x4 Appliance and Tip-back mechanics

CONTROL OF THE TRANSVERSE DIMENSION

Biomechanics for correction of Posterior X-Bite

Unilateral & Bilateral

Rapid Maxillary Expander

Biedermann-Hyrax type

Bonding type

Age limitation

Surgical Orthodontic Maxillary Expansion

Age limitation

CONTROL OF THE VERTICAL DIMENSION

Extraction vs. Non-Extraction Therapy

Maintaining the Symmetry

Extraction pattern and timing (See Text)

Distalization of the max.canine

A. Sliding mechanics

B. Loop mechanics

The use of tieback (TB) loops during distalization of the max. canine

Loop design & wire selection

WIRE BENDING EXERCISE

0.016 x 0.016 SS Contraction (Intermediate) AW with TB loops

0.016 x 0.022 TMA for Clinical use

0.016 x 0.022 SS Contraction AW

(or 0.017 x 0.022 SS CAW) with & without TB loops

18.00 Class finish

Day 3 - Friday

9.45 CONTROL OF THE SAGITTAL DIMENSION

Treatment of Class II, Class III and Maxillo-Mandibular anterior (bimaxillary) protrusion

Biomechanics for correction of Anterior X-Bite

Biomechanics for correction of large over-jet and side effects

The roll of the interincisal angle to post-Tx stability

Over-retraction of the anterior teeth & TMD

WIRE BENDING EXERCISE for

A. Maxillary anterior protrusion

The selection of maxillary anterior brackets

Max. 0.017 x 0.022 SS CAW with std. closing or L-loops intrusion step for anterior segment, and for M2 segments, sweep and torque

B. Mand. 0.016 x 0.022 SS or 0.017 x 0.022 SS

CAW1 with L-loops , intrusion step for anterior segment

C. Mand. 0.016 x 0.022 SS or 0.017 x 0.022 SS

CAW2 with L-loops and TB loops, intrusion step for anterior segment, and for M2, sweep and posterior torque

How should the case look at the end of the adjustment phase?

14.00 CONCLUSIONS: Biomechanics during 5 treatment phases

A. Open-bite cases

B. Deep-bite cases

C. Class I cases

D. Class II cases

E. Class III cases (in Course No. 6)

F. Maxillo-Mandibular anterior protrusion (bimaxillary) (in Course No. 7)

Tx objectives and planning the mechanotherapy

Esthetics

Functional Occlusion & Canine Guidance

Treatment time

Stability

Monitoring of the host response

15.30 Class finish

WHAT TO BRING ALONG?

Course participant need to have orthodontic pliers, instruments and material as listed below:

As in course No. 1

1 Typodont (Articulator) with acrylic white teeth

1 set of 018 slot Mini WICK Brackets

Washbon ORMCO bands with Alexander 1st & 2nd molar attachments,

1 Headgear low pull

TYPODONT SET UP:

Rt. side :in a Class II Molar relationship

Lt. side :in a Class II Molar relationship

Class II div. 1 malocclusion with slightly anterior crowding of max.dentition with protrusion of the max. incisors and slightly protrusion of the mand.incisors. Slightly open-bite

ALL MANUALS PROVIDED EARLIER SHOULD BE HANDY

WIRES:

0.016" SS round wire 0.016" x 0.016" SS

0.016" x 0.022" SS 0.017" x 0.022" SS